HLA COMPLIANCE CHECKLIST
FEDERATE
VERSION 1.1
26 March 1997

Compliance Item 1: The federate shall have an HLA Simulation Object Model (SOM), documented in accordance with the HLA Object Model Template (OMT).

Object Model Requirements

* : indicates mandatory table

Table	OMT Ref	
Object Class Structures	3.1 [2]	*
Object Interactions	3.2 [2]	*
Attributes and Parameters	3.3 [2]	*
Enumerated Data Types	3.3 [2]	
Complex Data Types	3.3 [2]	
Lexicon	3.4 [2]	*
Component Structures	3.1 [3]	
Associations	3.2 [3]	
Object Model Metadata	3.3 [3]	

Supporting Documentation

HLA Rules [1]
Object Model Template [2]
Object Model Template Extensions [3]
Test Procedures for the Object Model Template [4]

Compliance Item 2: Federates shall be able to update and/or reflect any attributes of objects in their SOM and send and/or receive SOM interactions, as specified in their SOM.

Service Requirements

† : RTI-initiated service; federate must accept service invocation

Service	IF Ref	OMT Ref
Publish Object Class	3.1	3.1,3.2,3.3
Publish Interaction Class	3.2	3.2
Subscribe Object Class Attributes	3.3	3.1,3.3
Subscribe Interaction Class	3.4	3.2
Control Updates†	3.5	
Control Interactions†	3.6	
Update Attribute Values	4.3	3.2,3.3
Reflect Attribute Values†	4.5	3.3
Send Interaction	4.6	3.2
Receive Interaction†	4.7	3.2
Request Attribute Value Update	4.14	
Provide Attribute Value Update†	4.15	
Retract	4.16	
Reflect Retract†	4.17	

Supporting Documentation

HLA Rules [1]
Object Model Template [2]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Compliance Item 3: Federates shall be able to transfer and/or accept ownership of attributes dynamically during a federation execution, as specified in their SOM.

Service Requirements

† : RTI-initiated service; federate must accept service invocation

Service	IF Ref	OMT Ref
Request Attribute Ownership Divestiture	5.1	3.3
Request Attribute Ownership Assumption†	5.2	3.3
Attribute Ownership Divestiture Notification†	5.3	3.3
Attribute Ownership Acquisition Notification†	5.4	3.3
Request Attribute Ownership Acquisition	5.5	3.3
Request Attribute Ownership Release†	5.6	3.3
Query Attribute Ownership	5.7	
Inform Attribute Ownership†	5.8	
Is Attribute Owned by Federate	5.9	

Supporting Documentation

HLA Rules [1]
Object Model Template [2]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Compliance Item 4: Federates shall be able to vary the conditions (e.g., threshhold) under which they provide updates of attributes of objects, as specified in their SOM.

Service Requirements

† : RTI-initiated service; federate must accept service invocation

Service	IF Ref	OMT Ref
Update Attribute Values	4.3	3.2,3.3
Reflect Attribute Values†	4.5	3.3

Supporting Documentation

HLA Rules [1]
Object Model Template [2]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Compliance Item 5: Federates shall be able to manage local time in a way which will allow them to coordinate data exchange with other members of a federation.

Service Requirements

† : RTI-initiated service; federate must accept service invocation

Service	IF Ref	OMT Ref
Request Federation Time	6.1	
Request LBTS	6.2	
Request Federate Time	6.3	
Request Min Next Event Time	6.4	
Set Lookahead	6.5	
Request Lookahead	6.6	
Time Advance Request	6.7	
Next Event Request	6.8	
Flush Queue Request	6.9	
Time Advance Grant†	6.10	

Supporting Documentation
HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Compliance Item 6: During a federation execution, federates shall interact with the runtime infrastructure (RTI) in accordance with the HLA interface specification.

Service Requirements
* : indicates mandatory service
† : RTI-initiated service; federate must accept service invocation

Service	IF Ref	OMT Ref	
Create Federation Execution	2.1		*
Destroy Federation Execution	2.2		*
Join Federation Execution	2.3		*
Resign Federation Execution	2.4		*
Request Pause	2.5		
Initiate Pause†	2.6		
Paused Achieved	2.7		
Request Resume	2.8		
Initiate Resume†	2.9		
Resume Achieved	2.10		
Request Federation Save	2.11		
Initiate Federate Save†	2.12		
Federation Save Begun	2.13		
Federation Save Achieved	2.14		
Request Restore	2.15		
Initiate Restore†	2.16		
Restore Achieved	2.17		
Request ID	4.1		
Register Object	4.2	3.1	
Discover Object†	4.4	3.1	
Delete Object	4.8		
Remove Object†	4.9		
Change Attribute Transportation Type	4.10		
Change Attribute Order Type	4.11		
Change Interaction Transportation Type	4.12		
Change Interaction Order Type	4.13		

Supporting Documentation
HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

HLA COMPLIANCE CHECKLIST
FEDERATION

Compliance Item 1: Federations shall have an HLA Federation Object Model (FOM), documented in accordance with the HLA Object Model Template (OMT).

Object Model Requirements

* : indicates mandatory table

Table	OMT Ref	
Object Class Structures	3.1 [2]	*
Object Interactions	3.2 [2]	*
Attributes and Parameters	3.3 [2]	*
Enumerated Data Types	3.3 [2]	
Complex Data Types	3.3 [2]	
Lexicon	3.4 [2]	*
Component Structures	3.1 [3]	
Associations	3.2 [3]	
Object Model Metadata	3.3 [3]	

Supporting Documentation

HLA Rules [1]
Object Model Template [2]
Object Model Template Extensions [3]
Test Procedures for the Object Model Template [4]

Compliance Item 2: In a federation, all object representation shall be in the federates, not in the Run Time Infrastructure (RTI).

Supporting Documentation

HLA Rules [1]

Comments

Review federation design/enforced by RTI

Compliance Item 3: During a federation execution, all FOM data interchanged among federates occurs via the RTI.

Supporting Documentation

HLA Rules [1]

Comments

Review federation design/operations

Compliance Item 4: During a federation execution, federates shall interact with the RTI in accordance with the HLA interface specification.

Supporting Documentation

HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Comments
Test all federates for compliance with interface specification
No added testing is needed if all federates in federation are HLA-compliant

Compliance Item 5: During a federation execution, an attribute of an instance of an object shall be owned by only one federate at any given time.

Supporting Documentation
HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Comments
Review federation design

HLA COMPLIANCE CHECKLIST
RUNTIME INFRASTRUCTURE

Compliance Item 1: During a federation execution, the Run Time Infrastructure (RTI) shall interact with federates in accordance with the HLA interface specification.

Supporting Documentation
HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Comments
Test RTI federate interfaces for all services given in the Interface Specification

Compliance Item 2: RTI shall provide services as called for by the federates via the interface in accordance with the RTI functional specification.

Supporting Documentation
HLA Rules [1]
Run Time Infrastructure Functional Specification [7]

Comments
Test RTI for compliance with RTI functional specification (in draft)

Compliance Item 3: In a federation, all object representation in the FOM shall be in the Federates, not in the RTI.

Supporting Documentation
HLA Rules [1]

Comments
Review RTI design.

Compliance Item 4: During a federation execution, the RTI shall enforce the fact that an attribute of an instance of an object can be owned by only one federate at any given time.

Supporting Documentation
HLA Rules [1]
Interface Specification [5]
Test Procedures for the Interface Specification [6]

Comments
Test via Query Attribute Ownership service.
Review RTI design.

REFERENCES

[1] Defense Modeling and Simulation Office, High Level Architecture Rules, Version 1.0, 15 August 1996.

[2] Defense Modeling and Simulation Office, High Level Architecture Object Model Template, Version 1.1, 12 February 1997.

[3] Defense Modeling and Simulation Office, High Level Architecture Object Model Template Extensions, Version 1.0, 20 August 1996.

[4] Defense Modeling and Simulation Office, High Level Architecture Object Model Template Test Procedures, Version 1.0, 5 September 1996.

[5] Defense Modeling and Simulation Office, High Level Architecture Interface Specification, Version 1.1, 4 February 1997.

[6] Defense Modeling and Simulation Office, High Level Architecture Interface Specification Test Procedures, Version 1.0, 11 September 1996.

[7] Defense Modeling and Simulation Office, High Level Architecture RTI Functional Specification